

REMARKS

Claim 1, 2, 4-11, 13-20 and 22-28 are pending in the application. In the Final Office Action of July 12, 2004, the Examiner rejected claims 1, 2, 4-11, 13-20 and 22-28 under 35 U.S.C. §102(e) as being allegedly anticipated by *Hanratty* (U.S. Patent No. 5,990,897). Applicant respectfully traverses the rejection and addresses the Examiner's disposition below.

Independent claims 1, 9, 10, 18, 19, 27 and 28 each claims a method, system, or article of manufacture wherein objects of a two-dimensional (2-D) image are assigned to one of a plurality of sequential layers that correspond to visually depicted depths of the objects in the two-dimensional image. The objects of each layer are rotated around a common rotational axis, the common rotational axis being the common rotational axis for the plurality of layers, to form a three-dimensional (3-D) rotational image. The three-dimensional rotational image has a maximum rotational angle around the common rotational axis with each object in a first of the layers having a minimum rotational angle and objects in layers other than the first layer having a rotational angle greater than the minimum rotational angle and less than or equal to the maximum rotational angle. The three-dimensional rotational image is displayed.

Referring to Applicant's Figures 4A and 4B as an illustrative example, objects (401-404) in a two-dimensional image 410 are each assigned to one of a plurality of layers. As shown in Figure 4B, the objects (401-404) are each rotated around a common rotational axis by rotational angles corresponding to their respective layers to form the three-dimensional rotational image 450.

This is clearly unlike *Hanratty*, which fails to disclose or even suggest rotating objects of different layers around a common rotational axis to different rotational angles corresponding to the layers. *Hanratty* discloses a method for generating a 3-D image of a solid from different 2-D views of the solid. Specifically, *Hanratty* derives a 3-D image of a solid from a 2-D top view, a 2-D view of each side, a 2-D bottom view, and a 2-D oblique view of the solid. For example, *Hanratty* teaches how to derive a 3-D image of a car from a 2-D top view of the car, a 2-D view of each side of the car, a 2-D bottom view of the car, and a 2-D oblique view of the car.

Hanratty fails to teach assigning each object in a 2-D image to one of a plurality of sequential layers that correspond to visually depicted depths of the objects in the two-dimensional image

To begin with, contrary to the Examiner's argument, *Hanratty* fails to disclose or even suggest assigning each object in a 2-D image to one of a plurality of sequential layers that

correspond to visually depicted depths of the objects in the two-dimensional image. As described above, *Hanratty* derives a 3-D image of a solid from various 2-D views of the solid. To derive the 3-D image, *Hanratty* initially divides each of its 2-D images into curves. (Col. 6, lines 30-col. 7, line 16). For example, if *Hanratty's* bottom view image consists of a square, then *Hanratty* initially sees the square as four individual line curves. Then, *Hanratty* attempts to group the curves into shapes (e.g., a square) by identifying closed curve sets and open curve sets. (Col. 7, lines 55-58). After shapes in a view are identified, the entire working view is rotated, as a single entity, to a proper three-dimensional spatial relationship with the other views. For example, the bottom view is rotated to be aligned such that it is positioned beneath the top view and coincident with the side views. (Col. 8, lines 37-57). Then, *Hanratty* processes closes disjointed curves. (Col. 8, lines 58-65).

Thus, unlike Applicant's claimed invention, *Hanratty* fails to disclose assigning objects of a 2-D image to sequential layers that correspond to visually depicted depths. Instead, *Hanratty* first treats curves individually, then treats curve sets individually, and then treats an entire view as a single object. Nowhere does *Hanratty* even discuss that its curves, curve sets or views are assigned to layers. In fact, *Hanratty* does not even mention layers, let alone assigning different objects of a single 2-D image to different layers corresponding to their visually depicted depths.

The Examiner cites *Hanratty* col. 3, lines 18-55 to support the Examiner's argument that *Hanratty* assigns objects of a 2-D image to layers that correspond to visually depicted depths. However, that passage fails to even relate to assigning objects to layers, let alone layers that correspond to visually depicted depths. That passage from *Hanratty* merely describes treating curves as primitives, not assigning objects to layers that correspond to visually depicted depths.

Hanratty fails to teach rotating objects of each layer as claimed by Applicant

Further, *Hanratty* fails to disclose or even suggest rotating objects of each layer around a common rotational axis, the common rotational axis being the common rotational axis for the plurality of layers, to form a three-dimensional rotational image having a maximum rotational angle around the common rotational axis with each object in a first of the layers having a minimum rotational angle and objects in layers other than the first layer having a rotational angle greater than the minimum rotational angle and less than or equal to the maximum rotational angle. As discussed above, *Hanratty* fails to disclose or even suggest assigning objects of a 2-D image to layers that correspond to visual depicted depths. Thus, for at least this reason, *Hanratty* could not disclose or even suggest rotating the objects of a 2-D image that are assigned to

different layers around a common rotational axis, the common rotational axis being the common rotational axis for the plurality of layers.

The Examiner cited *Hanratty* col. 36, line 6-col. 37, line 35, and argues that that passage discloses the claimed subject matter relating to rotating objects. However, that passage fails to even relate to rotating objects of different layers. That passage from *Hanratty* merely describes adding a line to close a curve set when two adjacent open curve sets meet at the line.

Accordingly, *Hanratty* fails to disclose or even suggest Applicant's independent claims 1, 9, 10, 18, 19, 27 and 28.

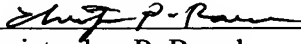
Claims 2, 4-8, 11, 13-17, 20 and 22-26 depend directly or indirectly from claims 1, 9, 10, 18, 19, 27 or 28 and are therefore allowable for at least the same reasons that claims 1, 9, 10, 18, 19, 27 and 28 are allowable.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

CONCLUSION

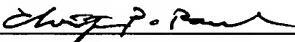
In view of the foregoing, it is submitted that claim 1-2, 4-11, 13-20, and 22-28 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 9, 2004.

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